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08/28/98



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 5
77 WEST JACKSON BOULEVARD
CHICAGO, IL 60604-3590



REPLY TO THE ATTENTION OF.

August 28, 1998

VIA FIRST CLASS MAIL

Michael Caldwell, Esq.
Fink Zausmer
31700 Middlebelt Road
Farmington Hills, MI 48334-0100

Re: Petition to Modify Landfill Cap at the Albion-Sheridan Township Landfill.

Dear Mr. Caldwell:

This is in response to your petition to the U.S. EPA requesting a change of the selected remedy at the Albion Sheridan Township Landfill from a solid waste cap to two feet of soil cover.

The geochemical modeling report presents a cogent analysis of the fate and transport of arsenic present in the leachate plume. In general, the U.S. EPA considers plausible both the concept and analysis presented in the report. Nevertheless, it is pertinent to recognize that this analysis is based on simplified assumptions and limited data. U.S. EPA notes that some of these limitations have been highlighted in the report. These limitations include the lack of data on the relative solubility and transport of arsenic from different the arsenic-bearing materials, the lack of information on the type of arsenic species present at the Site, and the lack of data regarding the extent of reducing conditions at the Site.

The report attempts to characterize the likely sources of arsenic at the Site. It states that the native materials such as shale, coal, and pyrites are the major sources of arsenic while the landfill waste materials are the minor sources. This may be true, but given the lack of data on the relative solubility and transport of arsenic from the different arsenic-bearing materials under consideration, relative quantitation of arsenic in the landfill waste materials or other substrates is speculative.

The report fails to consider the issue that the landfill leachate itself could cause conditions that may result in the formation of trivalent arsenic, as the report recognizes, a more soluble, mobile, and toxic form of arsenic. In the absence of sufficient data regarding the extent of reducing conditions at the Landfill Site, it is conservative to assume that these conditions may become more prevalent in the future and result in increased migration of arsenic from the Landfill. Consequently, arsenic could impact the downgradient wells more significantly.

Michael Caldwell, Esq.

August 28, 1998

Page Two

The conclusion that the downgradient wells are not impacted by arsenic is consistent with the U.S. EPA's own conclusion. Nevertheless, the U.S. EPA believes that the current groundwater analytical data is insufficient to conclude that migration of arsenic from the Landfill will not occur in the future. In order to monitor the downgradient migration of arsenic over a period time and to protect the human health and the environment, the U.S. EPA ROD requires that annual groundwater monitoring be conducted. Only if the review of groundwater monitoring data collected during the first five years indicate that the contaminant plume is migrating downgradient, will an in-situ groundwater treatment system will be implemented. This procedure of having a contingent remedy in place is in keeping with established U.S. EPA guidance for remedial alternatives that rely on natural attenuation.

Finally, under CERCLA, the type of cap that is placed over a landfill is governed by the regulations (ARARs) that apply to that particular type of landfill. The Albion-Sheridan Township Landfill received both solid and hazardous wastes. Most of hazardous wastes were removed in December 1998, leaving primarily solid waste. Consequently, the cap selected for the Site was a solid waste cap which comports with the Michigan Act 641 requirements for a solid waste landfill.

Thus, for the foregoing reasons, EPA concludes that no changes are necessary. You can reach me at (312) 353-1264.

Sincerely,

A handwritten signature in cursive script that reads "Jon Peterson".

Jon Peterson
Remedial Project Manager

cc: Francis J. Biros
U.S. DOJ